AMENDMENTS TO THE SPECIFICATION

Please amend the Specification at page 25, the paragraph between lines 7 and 21 as follows:

The syndrome decoding unit 33 calculates syndrome $S_B=Hm_B$ of m_B by the parity check matrix H and the ~~transmission~~ reception data m_B and further calculates syndrome $S=S_A+S_B$ by the syndrome S_A of m_A and the syndrome S_B of m_B (step S15). The syndrome decoding unit 33 estimates transmission data m_A based on the syndrome S (step S16). At this point, it is assumed that $m_A = m_A+e$ (noise and the like) and the syndromes is deformed as shown in the equation (15). "e" is accordingly obtained by syndrome decoding, and the transmission data m_A is obtained (step S16). "+" of $S=S_A+S_B$ and m_A+e indicates exclusive OR.

$$\begin{aligned} S&=S_A+S_B \\ &=Hm_A+Hm_B \\ &=H(m_A+m_B) \\ &=H(m_A+m_A+e) \\ &=HE \end{aligned} \qquad (15)$$

The syndrome decoding unit 33 calculates syndrome $S_B=Hm_B$ of m_B by the parity check matrix H and the reception data m_B and further calculates syndrome $S=S_A+S_B$ by the syndrome S_A of m_A and the syndrome S_B of m_B (step S15). The syndrome decoding unit 33 estimates transmission data m_A based on the syndrome S (step S16). At this point, it is assumed that $m_A = m_A+e$ (noise and the like) and the syndromes is deformed as shown in the equation (15). "e" is accordingly obtained by syndrome decoding, and the transmission data m_A is obtained (step S16). "+" of $S=S_A+S_B$ and m_A+e indicates exclusive OR.

$$\begin{aligned} S&=S_A+S_B \\ &=Hm_A+Hm_B \\ &=H(m_A+m_B) \\ &=H(m_A+m_A+e) \\ &=HE \end{aligned} \qquad (15)$$